

## Guest Editorial

# Nothing Personal . . .

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Orthodontics is dentistry's first specialty. As would be expected of a mature discipline, it features all the trappings of a learned calling: a well developed educational establishment, an extensive literature, prestigious professional societies. It commonly attracts the best in dentistry. Following a bout of demanding specialty education, new orthodontists are welcomed into practice by a respectful, appreciative public. It is, and always has been, a wonderful specialty.

Each year, the world's orthodontic programs are inundated by applications from prospective residents. Some fancy orthodontics because of the intellectual challenge; others, because of the status it confers or the 'lifestyle' it supports. If I am to believe the claims of a quarter-century of applicants, all look forward to 'working with children and helping people'. (Although few see pediatric dentistry or social work as appealing alternatives.) Indeed, a common thread to the average interview is the expressed desire to become an orthodontist because orthodontics is . . . different.

Malocclusion is not a disease. Nobody ever dies of overbite. A century of success in the marketplace argues that everything—edgewise, Begg, twin-wire, labio-lingual, bite jumping, bioprogressive, segmented arch, whatever—works and works well enough to support a successful practice. Thus, although we have been taught that treatments should have a rational theoretical basis and be supported by at least a modicum of proof, it is easy to infer that somehow the rules of science just do not apply. If a treatment 'works', what more is there to say? Apparently very little.

Over the years we have been treated to the embarrassing, demeaning spectacle of one aggrieved expert after another complaining about the failure of 'the schools' or 'the journals' to honor claims and assertions filtered and refined from a lifetime of successful practice. They seem truly mystified by the suggestion that personal experience is not enough. They stomp out of lectures. They rail at referees. They start their own schools. They form and populate their own societies. They write letters to the editor. In short, they are willing to do just about anything to convince their colleagues. Anything, that is, but gather what you or I would recognize as data. A recent response by Roth (1996) to a paper questioning a precept of gnathology serves as an example:

'You can imagine the frustration when you read an article that tells you that what you have been doing successfully ... does not work! Both Dr. Williams and I have used a guided located axis for treatment planning on a daily basis for more than 20 years. It works consistently and effectively....'

I, too, am frustrated. Surely it should come as no surprise that a treatment is not necessarily useful merely because it is used, albeit 'effectively' and for decades. Alchemy, after all, was a respected calling for a millennium. Testimonials from satisfied practitioners thus are of limited significance. Does anyone take seriously a centenarian's attribution of longevity to, say, a daily ration of cigars and aged whiskey? We are amused, but surely not convinced. Why then, under similar circumstances, do we believe claims that make cigars and whiskey look like a white paper from the Surgeon General? Why? Partly because orthodontic history teaches that there is no obvious penalty for being wrong.

Given the widespread, subliminal perception that success in practice is unrelated to 'science,' devotees of unproved and unlikely treatments have been allowed to delegate the burden of proof. Thus, it is 'business as usual' until someone troubles to prove them wrong. Given that most people have better things to do than devote their lives to an examination of someone else's ideas, most techniques go untested. Even if there is an attempt to conduct an independent evaluation, it always can be argued that the resulting data—commonly dismissed as the product of an irresponsible coterie of 'ivory tower' academics—somehow failed to catch the essence of the technique and thus were fatally flawed. The upshot of all of this is that a treatment may be abandoned because it is time-consuming, expensive, or just plain 'old fashioned,' but rarely because there is evidence that it is ineffective. Surely, it is the world turned upside down: the researcher should be the dreamer; the clinician, the crusty sceptic. How then can we have permitted the burden of proof to be so completely misplaced?

As might be predicted of a calling in which style is commonly of great importance, it is considered bad form to criticize a colleague. The rationale for granting what amounts to a blanket clinical indulgence is the fact that we cannot know the conditions under which a treatment was rendered. Scientific communication, however, is entirely different. Conditions and details must be described so precisely that anyone can repeat the study and, equally importantly, so precisely that the findings and conclusions can be criticized. Science has no place for a misplaced sense of professional propriety; we have an obligation to be both critical and demanding. When proponents, no matter how sincere, claim that efficacy is self-evident or that they are 'too busy helping children' to gather data or that the 'establishment' has conspired against them, their arguments must be dismissed as self-serving nonsense. There is no other way.

It is not my responsibility, nor indeed the responsibility

of academics in general, to test whatever conjecture happens to be au courant. I, for one, have enough trouble with my own ideas without having to contend with, say, gnathology or prediction or the dire warnings of the 'functional orthodontists.' Nor is it your responsibility. In the end, you and I are obliged only to be sceptical on the one hand and open to new data on the other. In turn, and in the vernacular, those who seek to convince have a duty 'to put up or shut up'.

My purpose in writing this polemic, quite simply, is to suggest that we—all of us—need to grow up. We need to decide what is important. If the answer is 'nothing,' then we are just bright children playing doctor. If, instead,

orthodontics is a service grounded in science, it is important to recall that the business of science is conducted according to well-known rules. We ignore them at our peril. Thus, when I complain about a lack of data, I mean no disrespect. As they say in the gangster movies, it's nothing personal, it's just business. Mine and yours.

### Reference

**Roth, R.H. (1996)**

Comments on condylar movement and mandibular movement, *American Journal of Orthodontics and Dentofacial Orthopedics*, **110**(3), 21–22A.